## FINAL DOCUMENT

# SAN JUAN RIVER BASIN RECOVERY IMPLEMENTATION PROGRAM RECOMMENDATION FOR HYDROLOGY COMMITTEE

June 20, 2001

## **5.1.3 Hydrology Committee**

The Hydrology Committee is a formal committee of the Implementation Program, combining and replacing both the Navajo Dam Operating Committee (originally authorized as a committee in this Implementation Program) and the Ad Hoc hydrology committee formed in 1997. The Navajo Dam Operating Committee was formed to provide input to Reclamation during the 7-year research period to help assure that the interests of the water users in the San Juan Basin and those of the environment were considered and protected to the extent necessary when making releases. This was done with the explicit understanding that Reclamation has ultimate responsibility for making final decisions regarding the operation of Navajo Dam in accordance with standard operating procedures.

In 1995, Reclamation began an effort to develop an operation model of the San Juan River. The Biology Committee recommended development of a standardized operation model for use during the flow recommendation development and review process, a part of the recovery program for the endangered fish. Reclamation and the Bureau of Indian Affairs on behalf of NIIP took the lead in model development. To allow for input from other interested parties, an Ad Hoc committee was formed by these two agencies in 1997 that did not have formal status in this Implementation Program. Beginning in 1997, the Ad Hoc committee met periodically to review model input, calibration and verification and to provide comment on the model development. Participants have included representatives of Reclamation, the Bureau of Indian Affairs—NIIP Project Office, the Service, the States of New Mexico and Colorado and the Southwestern Water Conservation District.

The current San Juan Basin model is based on "RiverWare," a generic-modeling tool developed by CADSWES of Boulder, Colorado. "RiverWare" has been in a state of development, with new functionality added and continual changes in the rule language made during the course of the San Juan modeling project. Since this modeling tool will continue to be used to analyze the capability of the river system to meet flow recommendations, on-going changes and updates to the model are likely to continue. In fact, a list of recommended upgrades to the model and input data has been developed and prioritized for future implementation. This ongoing maintenance requirement would benefit from the involvement of parties with an interest in the water resources of the San Juan Basin. Reclamation has agreed that it has the primary responsibility for operating the model and to physically maintain the model and model software.

## **Purpose**

The Hydrology Committee shall review and evaluate all hydrology related information pertinent to this Implementation Program. The Committee shall provide advice to the Biology Committee and Coordination Committee regarding hydrologic aspects of this Implementation Program for endangered fish and evaluate proposed changes to the San Juan Basin model and the flow recommendations. Examples of Hydrology Committee work include, but are not necessarily limited to, the following areas:

- Review and comment on the San Juan Basin Hydrology Model, including providing recommendations for model improvements and input data updates. Review and suggest changes or revisions to the model documentation maintained by Reclamation to ensure that all assumptions and model operating procedures are fully documented and up to date.
- Evaluate proposed changes to the operating rules for San Juan Basin Reservoirs and the impact
  of those changes on the ability to continue to provide flows for recovery of endangered fish and
  meet the authorized purposes of the project.
- In coordination with the Coordination Committee and the Biology Committee, evaluate, recommend and propose changes in environmental baseline depletions to the Service, with the understanding that the Service has the authority and responsibility for making the final decision on any changes to the environmental baseline.
- In coordination with the Coordination Committee, evaluate water right and compact issues pertinent to providing flows for endangered fish, including whether or not diversion requirements of water right holders can be met before storage releases to benefit endangered fish species are made, with the understanding that any final decisions on these issues rest with appropriate state or federal agencies.
- In coordination with the Biology Committee, review and comment on issues related to channel morphology, and the relationship among flows and geomorphology.
- If time permits, the Hydrology Committee, in coordination with the Biology and Coordination Committees, will provide input to Reclamation on Navajo Dam operations during unforeseen conditions that may not be covered by the flow recommendations and Navajo Dam operating criteria.
- During the Adaptive Management process evaluate and make recommendations on the known and potential hydrologic issues related to the flow recommendations.
- Provide coordination between Reclamation and this Implementation Program during Reclamation's public Navajo Reservoir operational meetings.

- Review applications made of the San Juan Basin model as appropriate or requested by this Implementation Program.
- Provide an annual work plan and budget to the Coordination Committee.

## **Organization**

Unlike the predecessor Ad Hoc committee and the Navajo Dam Operating Committee, representation on the committee and voting procedures for the Hydrology Committee will follow the same procedures as the Biology and Coordinating Committees with one seat for each participant in the Implementation Program. Participants will appoint their respective members to the Hydrology Committee. Due to the technical nature of the committee, committee members shall be required to have experience in hydrology, water rights, and the San Juan River Basin water supply, and have a working knowledge of the concepts of hydrologic modeling. Each Hydrology Committee representative's qualifications will be determined by the participant that the committee member is to represent.

Program participants, including agencies that desire to have alternates or more than one representative, shall have only one vote. A vote may be shared among multiple representatives. A quorum is a majority of the appointed Committee. The Hydrology Committee will function by two-thirds majority vote of the appointed committee membership. The Hydrology Committee will select its Chair by two-thirds majority vote and follow the meeting procedures adopted by the Coordination Committee in February 1997. Divergent views will be resolved at the Committee level whenever practicable. If resolution cannot be reached by two-thirds majority vote, a report of the question under dispute, including minority views, will be provided to the Coordination Committee for resolution pursuant to Section 5.1.1 of the Program Document.

Meetings will be scheduled on an as-needed basis, with at least one meeting per year. To the extent possible these meetings will be coordinated with regularly scheduled Reclamation Navajo Dam operation meetings. Although the Hydrology Committee expects to have regular and ongoing dialogue with Reclamation regarding how the San Juan Basin model functions as a tool to assist in recovery efforts and in Reclamation's daily operations of Navajo Dam, the Hydrology Committee recognizes that it is part of the Implementation Program and but one "interest group" participating in Reclamation's Navajo Dam Operations public meeting process.

The Participants will treat participation on the Hydrology Committee as an in-kind contribution to this Implementation Program.

#### **Reporting**

A letter style report addressing the status of the model and documenting changes to it, will be prepared annually and presented to the Coordination Committee no later than July 31 of each year. A letter style report documenting hydrologic conditions, Navajo Dam operations and updating hydrologic statistics as appropriate will be prepared annually on a water year basis (October 1 through September 30) and presented to the Biology and Coordination Committee by March 31.

## San Juan Basin Model Disclaimer

While every effort will be made to incorporate the best data and modeling available into the San Juan Basin Model, use of the hydrologic model in the work of this Committee and this Implementation Program does not necessarily constitute agreement or approval by individual program participants with the Model data, methodologies or assumptions. The model data, methodologies and assumptions do not under any circumstances constitute evidence of actual water use, water rights or water availability under compact apportionment's and should not be construed as binding on any party. Furthermore, use of the model, model data, methodologies and assumptions does not change the responsibilities of the respective states to maintain records of water rights and water use. Official records of water rights and water use are maintained by the State agencies statutorily charged with that responsibility.